IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	FONG, Mo-Han; IRAQI, Ali
Serial No.:	10/673,480
Filed:	September 30, 2003
Title:	MULTI-CARRIER LOAD BALANCING SCHEME FOR VOICE AND DATA
Group:	2686
Examiner:	HOLLIDAY, Jaime Michele
Attorney Ref.:	PAT 2151-2 US

February 8, 2007

APPEAL BRIEF

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant submits the following Appeal Brief pursuant to 37 C.F.R. § 41.37 for consideration by the Board of Patent Appeals and Interferences. **The Commissioner is hereby authorized to debit $500.00 from Deposit Account No. 501593, in the name of Borden Ladner Gervais LLP, representing the fees for filing the opening brief as required by 37 C.F.R. §41.20(b).** The Commissioner is hereby authorized to charge any additional fees, and credit any over payments to Deposit Account No. 501593, in the name of Borden Ladner Gervais LLP. A duplicate copy of the Fee Transmittal is enclosed for this purpose.

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I. REAL PARTY IN INTEREST

The real party in interest is the assignee, Nortel Networks Limited.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences known to the appellants, the appellants' legal representative, or assignee, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-20 are pending. Claims 1, 3, 4 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Zdunek et al., U.S. Patent No. 4,870,408 (referred to hereafter as Zdunek). Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being obvious over Zdunek in view of Brody et al., U.S. Patent No. 4,670,899 (referred to hereafter as Brody). Claims 5, 9, and 15-20 are rejected under 35 U.S.C. 103(a) as being obvious over Zdunek in view of Kotzin et al., U.S. Patent No. 5,796,722 (referred to hereafter as Kotzin). Claim 6 stands rejected under 35 U.S.C. 103(a) as being obvious over Zdunek in view of Ayyagari et al., U.S. Patent No. 6,278,701 (referred to hereafter as Ayyagari). Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being obvious over Zdunek in view of Salonaho et al., U.S. Patent No. 6,594,495 (referred to hereafter as Salonaho).

IV. STATUS OF AMENDMENTS

No Claim Amendments were made after the final rejection.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention is a method within a wireless system supporting both power-controlled voice service and rate-controlled data service. It should be readily understood that the voice service may be generalized to any other real-time circuit-switched service. The present invention ensures that the QoS or outage criteria of both voice and data are met while maximizing the overall system capacity. The method according to the present invention accomplishes this by balancing the voice and data loading in each carrier. [Paragraph 0032]

The challenge of supporting mixed voice and data per-carrier is to ensure the QoS or outage criteria of both voice and data are met, even when loads are high. It has been discovered that high frame error rate (FER) outages can be maintained at an acceptable level as long as

voice loading is below a certain level, but that above a certain level of voice loading, the FER outage rate becomes unacceptable. Therefore, the present application relates to a method or a system, which satisfies this challenge by a load-balancing scheme of voice and data across multiple carriers by addressing the issue of voice loading above the level at which the FER outage rate becomes unacceptable. [paragraphs 0034-0035]

Summary of Claim 1

Each carrier in a wireless communication network that carries mixed voice and data has a quality of service that is at least partly a function of the load of voice traffic on a carrier relative to the load of data traffic on the carrier [paragraphs 0034-0035]. The carrier load may reach an established maximum load value [paragraph 0036] beyond which quality of communications begins to degrade in some respects if the carrier continues to carry both voice and data [paragraphs 0034-0035]. The method of claim 1 ensures acceptable quality of communications by converting the carrier to voice-only traffic when that load value is exceeded [paragraph 0037].

For ease of reference, claim 1 is repeated, with reference to the relevant paragraphs of the specification which teach exemplary embodiments:

> A method of balancing voice and data traffic in a wireless communications network [paragraphs 0032 and 0035], said method comprising the steps of:
>
> establishing a maximum load value [paragraph 0036; numeral 501 in Fig 3] for at least one of a voice or data traffic on a carrier; and
>
> maintaining loading on said carrier at a level no greater than said established maximum load value by converting [paragraph 0037; numeral 504 in Fig 3] said carrier from voice and data traffic to voice-only traffic upon exceeding [numeral 503 in Fig 3] said established maximum load value [paragraph 0036; numeral 501 in Fig 3];
>
> wherein said established maximum load value is a threshold defined to ensure acceptable quality of communications [paragraph 0036; numeral 501 in Fig 3].

Summary of Claim 4

In claim 4, one or more carrier(s) in a wireless communication network carry both voice and data, and have a quality of service that is at least partly a function of their load of voice traffic relative to their load of data traffic [paragraphs 0034-0035]. The carriers have a threshold load value [paragraph 0036], beyond which quality of communications on some carriers may degrade in some respects [paragraphs 0034-0035]. The method of claim 4 therefore dynamically manages relative voice and data call loading among the one or more carriers to ensure acceptable quality of communications by converting at least one carrier to voice-only traffic when the threshold load value is exceeded [paragraph 0037].

For ease of reference, claim 4 is repeated, with reference to the relevant paragraphs of the specification which teach exemplary embodiments:

> A method of balancing voice and data call loads [paragraphs 0032 and 0035], said method comprising:
>
> dynamically managing relative voice and data call loading [paragraph 0035] among one or more carriers to a prescribed quality of service level [paragraph 0036; numeral 501 in Fig 3] by converting [paragraph 0037; numeral 504 in Fig 3] at least one of said one or more carriers from voice and data traffic to voice-only traffic [paragraph 0037] upon exceeding [numeral 503 in Fig 3] a carrier load value defined [paragraph 0036; numeral 501 in Fig 3] to ensure acceptable quality of communications [paragraph 0036; numeral 501 in Fig 3].

Summary of Claim 10

Each carrier in a wireless communication network that carries both voice and data has a quality of communications that is at least partly a function of the load of voice traffic on a carrier relative to the load of data traffic on the carrier [paragraphs 0034-0035]. The carrier load may reach an established maximum load value [paragraph 0036] beyond which quality of communications begins to degrade in some respects if the carrier continues to carry both voice and data [paragraphs 0034-0035]. The system of claim 10 maintains acceptable quality of communications by converting the carrier to voice-only traffic when that load value is exceeded [paragraph 0037].

For ease of reference, claim 10 is repeated, with reference to the relevant paragraphs of the specification and figures which teach exemplary embodiments:

> A system operable to balance voice and data traffic in a wireless communications network [paragraphs 0032 and 0035], said system comprising:
>
> a call controller operable to maintain call loading on a carrier at a level not to exceed a predetermined maximum level [paragraph 0036; numeral 501 in Fig 3] for at least one of voice or data traffic in the carrier by converting [paragraph 0037; numeral 504 in Fig 3] said carrier from voice and data traffic to voice-only traffic [paragraph 0037] upon exceeding [numeral 503 in Fig 3] said predetermined maximum level [paragraph 0036; numeral 501 in Fig 3], wherein said predetermined maximum level is defined to ensure acceptable quality of communications [paragraph 0036; numeral 501 in Fig 3].

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Appellants contend that all elements of claims 1, 3, 4 and 10 are not taught or suggested by Zdunek, and consequently the anticipation rejection under 35 U.S.C. 102(b) to each of these claims should be withdrawn. Furthermore, Appellants contend that none of the other cited references teaches or reasonably suggests the limitations of claims 2, 5-11 or 15-20 in combination with Zdunek, even if there were a motivation to form such combinations, which motivation is expressly denied.

VII. ARGUMENTS

In summary, before addressing each claim individually, we argue that Zdunek fails to anticipate the pending claims as Zdunek fails to teach each element of any of the claims[1].

[1] The Court of Appeals for the Federal Circuit has stated that "[t]o anticipate, *every element and limitation* of the claimed invention must be found in a single prior art reference, *arranged as in the claim*." (*Brown v. 3M*, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001) citing *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383,58 USPQ2d 1286, 1291 (Fed. Cir. 2001); *Scripps Clinic & Research Found. v. Genentech Inc.*, 927 F.2d 1565, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991) (Emphasis added). The Federal circuit has added that the anticipation determination is viewed from one of ordinary skill in the art: "There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of

In particular, Zdunek fails to teach, or suggest, at least 2 limitations of each of the claims. First Zdunek does not teach *converting* a carrier *from* **voice and data** traffic *to* **voice-only** traffic, as claimed in each of the claims at issue. This claim limitation has 2 aspects (each highlighted with a different type of emphasis) not taught by Zdunek. We respectfully submit that Zdunek relates to a different type of system, solves a different problem, and teaches a different solution than the present application. Quoting from Zdunek's summary at col 2, lines 32 to 39:

> Briefly, according to the invention, a method is disclosed to dynamically **allocate** a number of **data channels** on a **trunked radio system.** The data activity is monitored during a predetermined time interval. If activity is above a predetermined maximum, **an additional channel** is reserved for data use. Conversely, if data traffic is low, **a data channel is reallocated for voice message use.** (emphasis added)

It should be noted that Zdunek defines a basic principle of trunked communication systems is to allocate channel resources across a plurality of users as required. column 1, lines 65-66).

In brief the Zdunek reference pertains to a call admission gating function that includes re-allocation of channels to either voice or data when, correspondingly, voice activity or data activity is deemed to be high (see column 8, lines 9-42). However, Zdunek only teaches the use of channels (frequencies) which are allocated either to voice ***or*** data. Zdunek does not teach or suggest the use of any channel that carries **voice and data** traffic as claimed. On page 3 of the rejection, the examiner attempts to ignore this difference by stating "It is known in the art that data channels can support voice as well as data traffic." However this statement does not negate the fact that Zdunek fails to teach the claimed invention. Furthermore, this statement is completely at odds with the actual teachings of Zdunek. Zdunek teaches a data channel system which is simply not capable of carrying voice traffic (as it relies on data collision avoidance mechanisms, which are simply not appropriate for voice), and the problem Zdunek is motivated to solve clearly indicates that the data channels taught by Zdunek are not

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ordinary skill in the field of the invention." (*Scripps Clinic & Research Found. v. Genentech Inc.*, 927 F.2d 1565, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991).)

capable of supporting voice. Quoting from column 7, lines 30-42:

> "As previously mentioned, the request for assignment of a data channel is prohibitively long compared to the typical data message transmission time. Therefore, the present invention contemplates a subscriber unit going to its assigned data channel and transmitting the data information without re-requesting the channel. Operating in this manner conserves spectrum and speeds transmission by eliminating the requirement to request a data channel. Of course, there exists the possibility that there will be data collisions on the data channels. However, data collision avoidance mechanisms and methods are widely known in the art and any suitable data collision avoidance and recovery method will be suitable for use in the present invention."

Furthermore, Zdunek teaches a system, which determines whether it should allocate another channel for data traffic, or relinquish a data channel, in order to reallocate the channel resources (See column 5, lines 34-43, and Figure 4, steps 418 and 412 respectively). Nowhere does the reference teach or suggest *converting* (only adding or relinquishing a channel frequency as a data channel) a *carrier from* voice and data *to* voice only.

Secondly, Zdunek does not teach that an established maximum load value is a **threshold defined to ensure acceptable quality of communications.** The rejections to the claims rely on the description found at col. 5, lines 38-41 of Zdunek. Quoting from Zdunek:

> "Conversely, if the central determines that voice activity has exceeded a predetermined threshold, the central **102** requests the network controller to relinquish a data channel."

Even if the predetermined threshold of Zdunek may be equated *arguendo* with the established maximum load of value of the application in issue, which equivalency is denied, neither the cited passage, nor Zdunek in general, teach, suggest or mention that an established maximum load value is a threshold defined to ensure acceptable quality of communications. In fact, Zdunek describes the predetermined threshold of col. 5, lines 38-41 as one that is selected by a system supervisor: col 8, lines 9-11:

> "Decision **408** determines whether the voice activity is high when compared to a selected threshold that may be specified by the system supervisor."

In column 3, line 60 - column 4, line 7, Zdunek lists some parameters based on demand and/or priority for voice vs. data channels, Zdunek simply does not teach or suggest a threshold defined to ensure acceptable quality of communications:

> Generally, the fixed-end equipment also includes a system manager console 110 that enables the supervisor of a communication service provider to set a number of operational parameters that control the operation of the trunked communication system. Typical examples of such parameters include the maximum number of assignable data channels (if any), whether voice or data will be the priority traffic, and various threshold values that control when data channels may be added or reallocated to voice traffic. Thus, at any particular time, the trunked communication system of the present invention need not have any channels allocated for data traffic. Conversely, if voice traffic is low, or if data traffic enjoys a priority status or is particularly heavy, one or more channels may be allocated for data communication.

However, in the present application we point out that each carrier in a wireless communication network that carries both voice and data has a quality of communications that is at least partly a function of the load of voice traffic on a carrier relative to the load of data traffic on the carrier [paragraphs 0034-0035]. This is simply not taught or suggested by Zdunek (or the other references). Thus we respectfully submit that Zdunek's predetermined threshold fails to teach the claimed limitation, and thus this limitation of the claims is also not taught by Zdunek, as is required for an anticipation rejection.

Limitations similar to the 2 discussed above are found in each of claims 1, 4 and 10, the only independent claims at issue in this appeal, and Applicants argue that Zdunek's failure to teach these limitations is fatal to all of the Examiner's claim rejections. Applicants submit that as independent Claims 1, 4, and 10 are believed allowable, the further rejections of dependent Claims 2-3, 5-9, 11, and 15-20 based on further cited art should also be overcome.

In addition, the appellant makes the following arguments for each claim individually.

Claim 1

Claim 1 is not anticipated for the reasons given above. Without limiting the generality of the foregoing, Zdunek does not teach the claimed subject matter, and in particular, does not teach maintaining loading on said carrier at a level no greater than said established maximum load value by *converting said carrier from voice and data traffic to voice-only traffic* upon exceeding said established maximum load value, nor does Zdunek teach a method wherein said established maximum load value is a *threshold defined to ensure acceptable quality of communications*.

Claim 4

Claim 4 is not anticipated as Zdunek does not teach the claimed subject matter, and in particular, does not teach *converting* at least one of said one or more *carriers from voice and data traffic to voice-only traffic* upon exceeding a carrier load value defined *to ensure acceptable quality of communications* for the reasons given above.

In addition, Zdunkek does not each dynamically managing relative voice and data call loading among one or more carriers *to a prescribed quality of service level*. Furthermore, the rejection fails to establish a prima facie case of anticipation by failing to even address this limitation, and netiher the cited passage (Column 2 lines 37-44), or Zdunek generally, even mentions quality of service levels.

Claim 10

Claim 10 is not anticipated as Zdunek does not teach the claimed subject matter, and in particular, does not teach a call controller operable to maintain call loading on a carrier at a level not to exceed a predetermined maximum level for at least one of voice or data traffic in the *carrier by converting said carrier from voice and data traffic to voice-only traffic* upon exceeding said predetermined maximum level, wherein said predetermined maximum level is defined *to ensure acceptable quality of communications*, for the reasons given above.

Claims 2 and 11

Claim 2 (and 11) is rejected under 35 U.S.C. 103(a) as being obvious over Zdunek in view of Brody et al., U.S. Patent No. 4,670,899 (referred to hereafter as Brody).

With respect, the rejections are improper and should be reconsidered because they fail to establish a *prima facie* case of obviousness. More specifically, three criteria must be considered in order for an Examiner to establish a *prima facie* case of obviousness: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art references must teach or suggest all of the claim limitations. MPEP §§ 706.02(j), 2142 (8th ed.). **Applicants respectfully submit that the instant rejection fails on all three criteria.**

For the USPTO to combine references in an obviousness analysis, the USPTO must do two things. First, the USPTO must articulate a motivation to combine the references, and second, the Patent Office must support the articulated motivation with actual evidence. *In re Dembiczak*, 175 F.3d 994,999 (Fed. Cir. 1999). While the range of sources for the motivation is broad, the range of available sources does not diminish the requirement for actual evidence. *Id.*

However the Examiner rejects claims 2 and 11 based on the subject matter of the present application without providing a motivation from the cited references nor providing any other evidence. The only motivation given by the examiner to combine these references is "in order to balance call load/traffic efficiently."

We note that Brody makes no reference to data channels or data being transmitted over the air interface. Thus it is simply irrelevant to the claimed subject matter, and an ordinary worker skilled in the art who was attempting to balance data and voice call loads would have no motivation to look to a system which does not even mention data calls at all, or have a reasonable expectation of success.

Applicants respectfully submit that there is no motivation or suggestion to combine these references, apart from forbidden hindsight analysis based on the present application. In order to prevent hindsight analysis, there must be some motivation or suggestion to combine specific prior art in such a way as to arrive to the combination disclosed in the patent at issue. See, e.g., Yamanouchi Pharmaceutical Co., Ltd. v. Danbury Pharmacal, Inc., 231 F.3d 1339,

1343 (Fed. Cir. 2000): "*the suggestion to combine requirement stands as a critical safeguard against hindsight analysis and rote application of the legal test of obviousness.*", and Ecolochem, Inc. v. Southern California Edison Co., 227 F.3d at 1371-1372 (Fed. Cir. 2000), "*Combining prior art references without evidence or a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight.*"

In any event, Brody does not teach that an established maximum load value is a threshold defined to ensure acceptable quality of communications, and since Zdunek does not teach this limitation either, the combination of Brody and Zdunek fails to teach or reasonably suggest it.

Claims 5, 9, and 15-20

Claims 5, 9, and 15-20 are rejected under 35 U.S.C. 103(a) as being obvious over Zdunek in view of Kotzin.

However, Kotzin also does not teach the limitation of:

"converting at least one of said one or more carriers from voice and data traffic to voice-only traffic upon exceeding a carrier load value defined to ensure acceptable quality of communications"

Since claims 1, 4 and 10 all include a similar limitation, and since neither Zdunek nor Kotzin teach this limitation, the combination of these references therefore fails to teach all the limitations of claims 5, 9 and 15-20 which depend from claim 1 (15, 16), claim 4 (5, 9, 17, 18) and claim 10 (19,20). A keyword search of Kotzin fails to even turn up the word "data". The passage cited by the Examiner (col 2, lines 60-64) certainly fails to mention "voice and data" channels. Furthermore, Kotzin addresses the problem of interchannel interference in CDMA systems rather than the effect of same-channel quality of communications issues related to the relative loading of voice and data. Thus there is no motivation to combine it with Zdunek to solve the problem addressed by the present invention. In any event, the examiner has failed to establish a prima facie case of obviousness, for reasons similar to those argued above.

Claims 7 and 8

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being obvious over Zdunek in view of Salonaho.

Finally, the Examiner has rejected claims 7 and 8 as obvious over Zdunek in view of Salohano. Examiner admits that Zdunek fails to teach inter-cell or intra-cell interference, but alleges that Salohano discloses them. Without conceding the Examiner's point, the Applicants submit that the Examiner could not have combined these two references without forbidden hindsight. Salohano is concerned with overloaded cells and, peripherally, the effect of interference on the loading of these cells. To the extent that Salohano is concerned with interference of any kind, it is concerned with the effect of interference on overloading problems and spectral efficiency, rather than the effect of interference on "a prescribed quality of service level". Zdunek does not suggest mitigating the effects of interference on quality of service levels, and Salohano does not suggest converting carriers. In fact Salohano instead advocates decreasing a data rate to alleviate loading issues (col 6, lines 9-14 as cited by the Examiner). The applicants therefore submit that it is only with the exercise of improper hindsight that the Examiner combined the Salohano and Zdunek references, as evidenced by the Examiner's failure to clearly point to a suggestion for doing so in either reference.

Furthermore, and without limiting the generality of the foregoing, Salohano fails to teach the same limitations that Zdunek fails to teach, namely those of:

"converting at least one of said one or more carriers from voice and data traffic to voice-only traffic upon exceeding a carrier load value defined to ensure acceptable quality of communications"

Consequently, it would not have been obvious to combine Salohano and Zdunek since there would have been no motivation to combine them, and even if they were such a motivation, which is expressly denied, the combination would fail to teach or suggest all the limitations of claims 7 and 8. In any event, the examiner has failed to establish a prima facie case of obviousness, for reasons similar to those argued above.

VIII. CONCLUSION

Applicant respectfully requests that the Board enter a decision overturning the Examiner's rejection of all pending claims, and holding that the claims are neither anticipated by the prior art, nor rendered obvious in view of it.

Respectfully submitted,

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IX. CLAIMS APPENDIX

1. A method of balancing voice and data traffic in a wireless communications network, said method comprising the steps of:
establishing a maximum load value for at least one of a voice or data traffic on a carrier; and
maintaining loading on said carrier at a level no greater than said established maximum load value by converting said carrier from voice and data traffic to voice-only traffic upon exceeding said established maximum load value;
wherein said established maximum load value is a threshold defined to ensure acceptable quality of communications.

2. The method as claimed in Claim 1 wherein said established maximum load value is a voice load value.

3. The method as claimed in Claim 1 wherein said established maximum load value is a data load value.

4. A method of balancing voice and data call loads, said method comprising: dynamically managing relative voice and data call loading among one or more carriers to a prescribed quality of service level by converting at least one of said one or more carriers from voice and data traffic to voice-only traffic upon exceeding a carrier load value defined to ensure acceptable quality of communications.

5. The method as claimed in Claim 4 wherein voice and data loads are maintained on different call carriers.

6. The method as claimed in Claim 4 wherein base transceiver station transmit power is adjusted to maintain said prescribed quality of service level.

7. The method as claimed in Claim 4 wherein intra-cell interference is maintained below a prescribed level.

8. The method as claimed in Claim 4 wherein inter-cell interference is maintained below a prescribed level.

9. The method as claimed in Claim 4 further comprising,
implementing a migration of at least a portion of said voice or data loading from a first carrier to a second carrier.

10. A system operable to balance voice and data traffic in a wireless communications network, said system comprising:
a call controller operable to maintain call loading on a carrier at a level not to exceed a predetermined maximum level for at least one of voice or data traffic in the carrier by converting said carrier from voice and data traffic to voice-only traffic upon exceeding said predetermined maximum level, wherein said predetermined maximum level is defined to ensure acceptable quality of communications.

11. The system as claimed in Claim 10 further comprising,

control means operable to effect call handoff from a first base transceiver station sector or cell site to a second base transceiver sector or cell site upon attainment of call loading for said at least one of voice or data traffic at a percentage of said predetermined maximum level.

12. A method of balancing voice and data traffic in a wireless communications network, said method comprising the steps of:

(a) establishing a nominal value for acceptable quality of communications;
(b) distributing voice subscribers among a plurality of carriers until a load value for each carrier exceeds said nominal value;
(c) converting one of said carriers to a voice-only carrier;
(d) upon said load value of all carriers other than said voice-only carrier exceeding said nominal value, admitting said new voice subscriber to said voice-only carrier;
(e) upon said load value of said voice-only carrier falling below said nominal value, converting said voice-only carrier back to a voice and data carrier; and
(f) repeating steps b though e.

13. The method as claimed in Claim 12 wherein the step of converting one of said carriers to a voice-only carrier includes,

designating one carrier as said voice-only carrier, and

performing a hard handoff of data subscribers on said voice-only carrier to any carrier other than said voice-only carrier until said load value of said voice-only carrier falls below said nominal value.

14. The method as claimed in Claim 12 wherein the step of converting one of said carriers to a voice-only carrier includes,

designating on carrier as said voice-only carrier,

performing a migration of data subscribers on said voice-only carrier to any carrier other than said voice-only carrier so long as said load value of said voice-only carrier is between a first threshold equal to said nominal value and a second threshold equal to a value greater than said nominal value, and

performing a hard handoff of data subscribers on said voice-only carrier to any carrier other than said voice-only carrier upon said load value of said voice-only carrier exceeding said second threshold.

15. The method as claimed in Claim 1 wherein converting said carrier from voice and data traffic to voice-only traffic is accomplished by admitting additional voice traffic to said carrier while removing data traffic by hard handoff onto any other available carrier having a lowest load value until loading on said carrier is reduced below said established maximum load value.

16. The method as claimed in Claim 1 wherein converting said carrier from voice and data traffic to voice-only traffic is accomplished by admitting additional voice traffic to said carrier while implementing a migration of data traffic onto any other available carrier having a lowest load value until loading on said carrier is reduced below said established maximum load value.

17. The method as claimed in Claim 4 wherein converting said carrier from voice and data traffic to voice-only traffic is accomplished by admitting additional voice traffic to said carrier while removing data traffic by hard handoff onto any other available carrier having a lowest load value until loading on said carrier is reduced below said established maximum load value.

18. The method as claimed in Claim 4 wherein converting said carrier from voice and data traffic to voice-only traffic is accomplished by admitting additional voice traffic to said carrier while implementing a migration of data traffic onto any other available carrier having a lowest load value until loading on said carrier is reduced below said established maximum load value.

19. The method as claimed in Claim 10 wherein converting said carrier from voice and data traffic to voice-only traffic is accomplished by admitting additional voice traffic to said carrier while removing data traffic by hard handoff onto any other available carrier having a lowest load value until loading on said carrier is reduced below said established maximum load value.

20. The method as claimed in Claim 10 wherein converting said carrier from voice and data traffic to voice-only traffic is accomplished by admitting additional voice traffic to said carrier while implementing a migration of data traffic onto any other available carrier having a lowest load value until loading on said carrier is reduced below said established maximum load value.

X. EVIDENCE APPENDIX

None

XI. RELATED PROCEEDINGS APPENDIX

None

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